

A<sup>4</sup><sub>c-d</sub>  
color such that wavelengths of light in the range of 200 nm to 700 nm, and more preferably 250 nm to 600 nm, will be prevented from passing therethrough.--

Please add the following new paragraph at page 8, after line 21 as follows:

A<sup>5</sup>  
--In particular, as described in U.S. Application Serial No. 08/485,452, now U.S. Patent No. 5,945,334, selected fluids are introduced into and out of the cavity via the inlet port and the outlet port. In some embodiments, the inlets/outlets are located at opposite ends of the cavity. This configuration improves fluid circulation and regulation of bubble formation in the cavity. The bubbles agitate the fluid, increasing the hybridization rate between the targets and complementary probe sequences.--

IN THE CLAIMS:

Please cancel all claims 1-32.

Please add new claims 33-40 as follows:

- A<sup>6</sup>
- ~~33.~~ (New) A system for facilitating the mixing of a fluid, the system comprising:
- at least one cartridge having a chamber partially filled with a fluid to form a bubble therein, wherein the chamber includes a pair of closely spaced-apart faces that are separated by walls to define a narrow interior for holding the fluid; and
  - a holding device that comprises a rotatable body having a rotational axis, wherein the rotatable body includes at least one mounting element that is adapted to mount a cartridge such that the fluid within the chamber is agitated by the bubble during rotation of the rotatable body.
34. (New) A system as in claim 33 wherein the fluid contains at least one target molecule and the chamber includes a polymer array containing complementary probe sequences adapted to be placed in fluid communication with the fluid, wherein agitation of the fluid by the bubble increases the hybridization rate between the target and the probe sequences.

35. (New) A system as in claim 33, wherein the walls of the chamber are set at angles sufficient to agitate the fluid when rotated.

36. (New) A method for facilitating the mixing of a fluid, the method comprising:

providing a cartridge having a chamber partially filled with a fluid to form a bubble therein, wherein the chamber includes a pair of closely spaced-apart faces that are separated by walls to define a narrow interior for holding the fluid;

placing the cartridge within a holding device that comprises a rotatable body having a rotational axis, such that the fluid within the chamber is agitated by the bubble during rotation about the rotational axis; and

rotating the rotatable body about the rotational axis such that the bubble agitates the fluid to mix the fluid within the chamber.

37. (New) A method as in claim 36 wherein the walls of the chamber are set at angles sufficient to agitate the fluid when rotated.

38. (New) A method for mixing a fluid containing a least one target molecule, the method comprising:

providing a cartridge having a chamber partially filled with a fluid to form a bubble therein, wherein the chamber includes a pair of closely spaced-apart faces that are separated by walls set at angles sufficient to agitate the fluid when rotated and a polymer array containing complementary probe sequences adapted to be placed in fluid communication with the fluid; and

rotating the cartridge about a rotational axis so that the fluid within the chamber is agitated during rotation by the flow of the fluid changing direction as it engages the chamber walls and by the bubble.

39. (New) A method as in claim 38 wherein the agitation of the fluid increases the hybridization rate between the target molecules and the complementary probe sequences.

A6